U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET NUMBER : E00067EN	TCDS NUMBER : E00067EN REVISION: 1 MODELS: SR305-230 DATE: October 18, 2003

Engines of models described herein conforming with this data sheet (which is part of Type Certificate Number E00067EN and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations, provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

TYPE CERTIFICATE (TC) HOLDER

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I. MODELS	**SR305-230**
TYPE	The SR305-230 is a 4 stroke diesel cycle engine (4988 cm^3) air cooled with a secondary oil cooling system. It is equipped with a direct injection system and is turbocharged with air/air intercooling. The engine is a direct drive with flat four cylinders, horizontally opposed
CERTIFICATION BASIS	FAR 21.29 amd FAR 33, effective February 1, 1965, and Amendments 33-1 through Amendment 33.18
Model	SR305-230
Effective Date of TC Application	September 13, 1999
Type Certificate Number	E00067EN
Issue Date	July 8, 2002
Date Model Added to TC	July 8, 2002
IMPORT REQUIREMENTS	To be considered eligible for installation on a U.S. registered aircraft, each engine to be exported to the United States shall be accompanied by a Certificate of Airworthiness for export endorsed by the Direction Generale de l'Aviation Civile (DGAC), which contains the following language: 1. This engine conforms to United States Type Certificate Number E00067EN and is in a condition for safe operation. 2. This engine has been subjected by the manufacturer to a final operational check and is in a proper state of airworthiness. Reference FAR Section 21-500, which provides the airworthinenss acceptance of aircraft engines or propellers manufactured outside the U.S. for which a U.S. type certificate has been issued.

LEGEND: "- -" INDICATES "SAME AS PRECEDING MODEL"
"---" INDICATES "DOES NOT APPLY"

NOTICE: ALL PAGES ARE REFORMATTED. SIGNIFICANT CHANGES, IF ANY ARE BLACK-LINED IN THE LEFT MARGIN.

RATINGS (U.S Standard Atmosphere at Sea Level Pressure Altitude)	**SR305-230**
Takeoff, HP(KW) Maximum duration Max Continuous, HP(KW) Maximum duration	226.5 (169) at 2200 rpm 5 minutes 197(147) at 2200 rpm unlimited

FUEL (See NOTE 4)	JET-A1 (F-35) Use of anti-icing additive for fuel temperature<0 degrees Celsius

OIL (See NOTE 4)	1. Type: 100% synthetic a. Standard: ACEA E4 / API CF / MIL L 2104E b. Viscosity: 10W40 2. Oil sump capacity, Gallon (liters) Total capacity: 1.72 (6.5, 6.72 including filter)

PRINCIPAL DIMENSIONS	
Length, in (mm)	32.3 (820)
Width, in (mm)	36.6 (930)
Height, in (mm)	29.5 (750))

CENTER OF GRAVITY	Refer to Installation Manual.

	SR305-230
WEIGHT (dry) pounds (kg),	423.3 (192), Refer to Installation Manual, for definition of engine dry weight

CONTROL SYSTEM	Single channel electronic engine control system with manual backup. The S/W of the engine control system has been developed and tested iaw DO178B, Level C.

FLUIDS (FUEL/OIL/ADDITIVES):	See Installation Manual for further details

NOTES

	SR305-230
NOTE 1. Rotation Speed Limits: ---Engine maximum speed: ---Turbocharger maximum speed:	 2200 rpm 135,000
NOTE 2. Temperature limits:	1. Maximum cylinder head temperature, deg F (C) : 358 (181) ^{o}C 2. Maximum intake air temperature (at intake manifold inlet) deg F(C): 149 (65) 3. Maximum turbine inlet temperature, deg F(C): 1346 (730) 4. Maximum oil deg F (C): 230 (110) 5. Minimum oil temperature for power up, deg F (C) : 149 (65) 6. Minimum oil temperature for starting, deg F (C): -4 (-20) 7. Maximum fuel temperature (at low pressure pump inlet), deg F(C): 149 (65)

NOTE 3. Altitude (Standard Atmospheres)	1. Maximum altitude, ft (m): 12,500 (3810) 2. Critical altitude, ft (m): 10,000 (3048)
NOTE 4. Fuel and Oil Pressure Limits, PSI (kPa)	1. Fuel: minimum absolute pressure (at low pressure pump inlet): 8.7 (60) 2. Oil (relative pressure): • maximum, cold engine: 173.7 (1200) • Nominal: 46.4 to 79.6 (320 to 550) • Minimum at idle: 14.7 (100)
NOTE 5	Not Used

NOTE 6.	**SR305-230**
Induction System (absolute pressure), PSI (kPa)	---Take off maximum manifold pressure, (Sea Level Static, ISA): 42.7 (295) ---Maximum Continuous: 38.1 (263) • ---Refer to Engine "Operating Manual" for other operating conditions.

NOTE 7. Aircraft Accessory Drive	**SR305-230**			
Accessory-Drive	Direction of Rotation (See Note 7a)	Rotation Speed (Rpm) (See Note 7b)	Maximum Torque In. lb. (Nm)	Drive
Propeller Governor	CCW	2708	212 (23.9)	AND 20010
Air Pump	CW	2589	93 (10.5)	AND 20000
Alternator	CCW	2200 (see Note 7c)	N/A	V Belt ISO 9982
A/C compressor or 2nd Alternator	CCW	2200 (see Note 7c)	N/A	V Belt ISO 9982

Note 7a: CCW = counterclockwise. The rotation direction of the power drives for the accessories is indicated considering the power drive seen from the outside or from the front of the engine for accessories driven from the front pulley of the engine.

Note 7b: The speed of rotation for the accessory poiwer drives is indicated for a reference engine speed of 2000rpm.
Note 7c: Driving pulley speed. Accessory rotation speed depending on accessory pulleys ratio.

NOTE 8.	Oil Systems: Refer to Installation Manual.
NOTE 9.	Installation Assumptions: See Installation Manual.
NOTE 10.	Electrical Equipment: Refer to Installation Manual.
NOTE 11.	Dispatch Limitations: All engine systems and equipment must be functional prior to aircraft take-off. Any detected engine system or equipment failure must be corrected before next flight.
NOTE 12.	Refer to Installation Manual for approved oil specification.
NOTE 13.	Refer to Installation Manual for approved fuel and additive specification.
NOTE 14.	Life-limited components are listed in DGAC-approved "Airworthiness Limitations" chapter/section of the engine Maintenance Manual.

NOTE 15.	Manuals required by FAR 33.4 and 33.5: Installation Manual: DJC 01-01 Operating Manual: DJC 01-02 Maintenance Manual: DJC 01-03 Overhaul Manual: DJC 01-04 (see Note 16) Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, overhaul and maintenance manuals which contain a statement that the document is DGAC approved, are accepted by the FAA and are considered FAA-approved. These approvals pertain to the type design only.
NOTE 16.	Overhaul of engines is not authorized unless the appropriate overhaul manual is available; otherwise rebuilt engines utilizing new engine tolerances may be provided by the manufacturer.
NOTE 17.	The engine is approved for installation in Normal and Utility aircraft categories only.
NOTE 18.	The electronic control unit must not be installed in a dedicated fire zone. The installation conditions are defined in the Installation Manual.
NOTE 19.	The software of the ECU has been validated according to DO 178 B, level C.
NOTE 20.	The operating/starting envelope is provided in the Installation Manual.
NOTE 21.	EMI/Lightning: The protection of the engine electronic control system against lightning and electromagnetic interference has been tested in accordance with DO 160D. The levels of protection are defined in the Installation Manual.
NOTE 22.	The SR305-230 engine model was initially certified with a 2 blade constant speed propeller of 3.5 kg-m^2 moment of inertia and 35 kg weight. The list of propellers that are approved for use with the engine is published in the Installation Manual.

---THE END---